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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/033,116

12/27/2001

Raymond V. Damadian

265/173

7678

7590

03/23/2007

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EXAMINER

RAMIREZ, JOHN FERNANDO

ART UNIT

PAPER NUMBER

3737

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/23/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/033,116

Applicant(s)

DAMADIAN ET AL.

Examiner

John F. Ramirez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-36,38-46 and 48-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12,15-24,40-46,48 and 53 is/are rejected.
- 7) ☒ Claim(s) 13,14,25-36,38,39 and 49-52 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10-5-06
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

After a review of applicant's remarks, all necessary changes to the claims have been entered. Accordingly, claims 37 and 47 have been cancelled and new claims 51-53 have been added.

Applicant's arguments filed October 5, 2006 have been fully considered but they are not persuasive.

In regards to claim 1, applicant alleges on page 12 that there is no teaching or suggestion in the Fiberstars® Reference that such a projector would be useful in an MRI system. Furthermore, there is also no teaching or suggestion in the Fiberstars® Reference that the Fiberstars® light projector is intended to be moved into a plurality of positions for lighting of different sites of interest, after initial positioning. There is a presumption of full knowledge of all of the prior art within the field of the applicant's endeavor; however, with regard to prior art outside this field, there is a presumption of knowledge from those arts reasonably pertinent to the particular problem with which applicant was involved. In re Deminski, 796 F.2d 436, 442, 230 USPQ 313, 315 (Fed. Cir. 1986); In re Wood, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979). Furthermore, in the Description section of the Fiberstars® Reference specifically states "By connecting numerous fixtures to one illuminator, multiple locations can be illuminated from one light source". Therefore, the light projector as presented in Fiberstars® would still read on claim 1.

With respect to claims 42-46, Kuth shows in Figure 2 and discloses a

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method of conducting a medical procedure (abstract), positioning a subject in an imaging volume (6) of a magnetic resonance imaging (MRI) magnet assembly (fig. 2, element 8); conducting a medical procedure on the subject (abstract); conducting magnetic resonance imaging of the subject (col. 1, lines 44-48); and flexing a light projector connected to the MRI magnet assembly to illuminate at least a selected portion of the subject (col. 1, lines 44-48), col. 3, lines 17-27), illuminating (30, 32, 33) the subject (8) with a light projector (32) connected to a canopy covering a pole of the magnetic resonance imaging system (see element 10 which is interpreted referring to pole shoes "covering" the poles thereby serving as "canopy"), wherein the MRI magnet assembly (12) is within a shielded room, illuminating the subject with a light projector optically coupled (30, 32, 33) to a light source (20) outside of the shielded room (see claim 1), further comprising conveying light from the light source to the light projector (see figure 1), through the canopy (10), conveying the light from the light source to the light projector by optical fibers (34) extending between the canopy and a pole (10 with insulated canopy cover) of the MRI magnet assembly (12), to the light projector (32).

Regarding claims 42-43, Kuth discloses a magnetic resonance system having illumination means that makes adequately high luminance for surgical procedures. (Col.1, lines 44-48).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 15-16, 6-12, 20-23, 40-41 and 48 are rejected under 35 U.S.C.

103(a) as being unpatentable over Kuth in view of Fiberstars Lighting for the 21<sup>st</sup> Century (Specifications and Submittal sheet 210, 219, 220). Fiberstars teaches all the limitations of the claimed subject matter except for mentioning specifically the light projector being bendable along a length. Fiberstars teaches substantially all of the features of the present invention including a fiber optic lighting system that consist of a plurality of jointed segments snapped together (see section of Diagrams), each segment having a rounded and recessed end to create a flexible and aimable light projector (see sections Diagram and Description), in order to safely highlight the area of interest and illuminate difficult or inaccessible areas (see section of Application). It would have been obvious to one of ordinary skill in the art at the time of invention was made to have placed the light projector of Fiberstars in the magnetic resonance imaging system of Kuth in order to provide a flexible and aimable illumination towards the patient and the site of interest thereby providing the user with safe highlighting and easy illumination of difficult or inaccessible areas as taught by Fiberstars during the MRI medical procedure.

Claims 5, 17, 18, 19, 24 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuth (U.S. 5,627,470) in view of Torchia et al. (U.S. 2004/0249261). Kuth teaches substantially, all of the features of the present invention including a magnet assembly (12), a light source (20) that is obvious to be connected to an

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alternating current power source, a light projector (32), optical connection means (26), a lightguide that is formed by a bundle of optical fibers (34), a ferromagnetic frame (14), first and second opposing poles with integral canopies (10). Kuth does not disclose means connecting the light source to the light projector through a wall of the shielded room. In the same field of endeavor, Torchia et al. teaches this feature (Page 5, Paragraph 0125), showing that any object that is shielded would prevent interference with the small radio frequency signals that must be detected for the MRI analysis to be effective (Page 7, Paragraphs 0145, 0146). It would have been obvious to one of ordinary skill in the art at the time of invention was made to have placed the light source arrangement of Torchia et al. in the magnetic resonance imaging system of Kuth in order to prevent interference with radio frequency signals in the operation of the MRI system.

Regarding claim 53, Kuth discloses a portion of the optical fibers extend out of the first canopy substantially parallel to the first pole face, (see claim 1 and col. 3, lines 1-5).

### ***Allowable Subject Matter***

Claims 13, 14, and 25-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 28-36, 38-39, and 49-52 are allowed. The following is an examiner's statement of reasons for allowance: The present invention pertains to a MRI system. In regards to Claims 28-36, 38-39 and 49-52, it is the examiner's opinion that the art of

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record considered as a whole, alone or in combination, neither anticipates nor renders obvious a connected light projector to a canopy defined by the applicant as having at least one recessed portion and the light projector is connected to the first canopy within the recessed portion, together in combination with the rest of the limitations or the dependent claims.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John F. Ramirez whose telephone number is (571) 272-8685. The examiner can normally be reached on (Mon-Fri) 7:30 - 4:00 p.m.

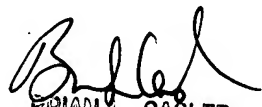


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JFR  
03/08/07

  
BRIAN L. CASLER  
SUPERVISORY PATENT EXAMINER  
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